

REMARKS/ARGUMENTS

In the Office Action mailed April 3, 2009, claims 1, 6, 7, and 11 were rejected. Additionally, claim 1 was objected to because of informalities. Additionally, claims 2-5, and 8-10 were objected to, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response, Applicant hereby requests reconsideration of the application in view of the amendments and the below-provided remarks.

For reference, claims 1, 4-6, and 7 are amended and claim 11 is canceled. In particular, claim 1 is amended to recite “an insulated field effect transistor structure,” based on the suggestion of the Examiner (whose recommendation to add “field” prompted the addition of “field effect” to the language of the claim). Claim 1 is also amended to clarify that the “p-n junction is below a drain region and between a body region and the drain region, [and] the body region is doped to have the second conductivity type and the drain region is doped to have the first conductivity type,” based on the suggestion of the Examiner. These amendments are supported by the original language of the claims. Claims 4 and 5 are amended to clarify the language of the claims. These amendments are supported by the original language of the claims. Claims 6 and 7 are also amended to clarify the language of the claims, including “an epilayer of semiconductor doped to have a doping density lower than a doping density of a trench.” Claim 7 is also amended to also recite “a doping density in the semiconductor trenches higher than the doping density of the layer of the substrate.” These amendments are supported, for example, by the subject matter described in the specification at page 10, lines 8-13, and illustrated in Fig. 9.

Allowable Subject Matter

Applicant appreciates the Examiner’s review of the claims and determination that claims 2-5 and 8-10 recite allowable subject matter. In particular, the Office Action states that claims 2-5 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Also, Applicant appreciates the

Examiner's determination that claims 1, 6, and 7 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, second paragraph.

Additionally, while the Office Action provides a statement of reasons for the indication of allowable subject matter, the statement is directed to specific aspects of certain claims and not necessarily all of the claims. Applicant notes that the comments may have paraphrased the language of the claims and it should be understood that the language of the claims themselves set out the scope of the claims. Thus, it is noted that the claim language should be viewed in light of the exact language of the claim rather than any paraphrasing or implied limitations thereof.

Objections to the Claims

The Office Action objects to claim 1 for informalities. In particular, the Examiner suggests inserting –field– before “transistor” at line 11. Claim 1 is amended to recite “an insulated gate field effect transistor structure” based on the Examiner suggestion. This amendment is believed to overcome the objection to claim 1. Accordingly, Applicant respectfully requests that the objection to claim 1 be withdrawn.

Claim Rejections under 35 U.S.C. 112

Claims 1, 6, and 7 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant submits that the amendments to claims 1, 6, and 7 clarify the language of the claims to overcome the indicated rejections.

In particular, claim 1 was rejected for vagueness regarding the subject matter related to the recited p-n junction, body region, and drain region. Claim 1 is amended to recite the “p-n junction is below a drain region and between a body region and the drain region, [and] the body region is doped to have the second conductivity type and the drain region is doped to have the first conductivity type,” based on the suggestion of the Examiner. Accordingly, Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. 112, second paragraph, be withdrawn.

Claims 6 and 7 were rejected for indefiniteness regarding the subject matter related to “a lower doping density.” Claim 7 was also rejected for indefiniteness

regarding the subject matter related to “a higher doping density.” Claims 6 and 7 are amended to recite “an epilayer of semiconductor doped to have a doping density lower than a doping density of a trench,” and claim 7 is also amended to also recite “a doping density in the semiconductor trenches higher than the doping density of the layer of the substrate.” Accordingly, Applicant respectfully requests that the rejections of claims 6 and 7 under 35 U.S.C. 112, second paragraph, be withdrawn.

Claim Rejections under 35 U.S.C. 102

Claim 11 was rejected under 35 U.S.C. 102(b) as being anticipated by Yamada (U.S. Pat. No. 6,160,288, hereinafter Yamada). However, claim 11 is canceled. Consequently, Applicant respectfully submits that the rejection of claim 11 under 35 U.S.C. 102(b) is moot.

CONCLUSION

Applicant respectfully requests reconsideration of the claims in view of the amendments and the remarks made herein. A notice of allowance is earnestly solicited.

This response is accompanied by the appropriate fee to obtain a 1-month extension of the period for responding to the Office Action, thereby moving the deadline for response from June 3, 2009, to July 3, 2009.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-4019** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-4019** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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Date: August 3, 2009

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